

Work Order ID 93736

93736

Page 1

December 5, 2012 1:44:19 PM

647.9310

Item ID: 647.9310

B93736

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: LH Bracket

Start Date: 11/26/12 Start Qty: 10.00

10

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

CL

Date: 12/12/12

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool

Tool Code

Accept Qty

Reject Qty

Reject Number

Disp. Stamp

Draw Nbr

Revision Nbr

647.9300

100

0.00

100

Bandsaw

Jeaspa Bandsaw

Memo

CUT AT 12.0" LONG

0.00

12-12-19

10

110

0.00

110

Outsource5

Outsource process - Machining

Memo

ISSUE P/O: 18599
POSSIBLE SUPPLIER: ARCHER PRECISION

0.00

Certificate of conformaty required

12-6-12

115

Receive & Inspect for Damage & Mat'l Certs

0.00

115

Packaging

Packaging

Memo

0.00

12/31/12 (10)

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Work Order ID 93736

December 5, 2012 1:44:19 PM

93736

Page 2

Item ID: 647.9310

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: LH Bracket

Start Date: 11/26/12 Start Qty: 10.00

10

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Cod.

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

117

QC6- Inspect dimensions to drawing

0.00

117

QC

Memo

Quality Control

118

0.00

118

HandFinish

Memo

Hand Finishing

REMOVE ALL PART MARKINGS

120

0.00

120

Outsource4

Memo

Outsource process - Anodize

HARD ANODIZE IAW MIL-A-8625 TYPE 3
COLOUR BLACK

P10:20257

10 219 13-6-17

CZ13106/200

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

Work Order ID 93736***93736***

Page 3

December 5, 2012 1:44:19 PM

Item ID: 647.9310

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: LH Bracket

Start Date: 11/26/12 Start Qty: 10.00

10

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Receive & Inspect for Damage & Mat'l Certs	0.00							
130									
Packaging	Memo	0.00							
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								
140	QC5- Inspect part completeness to step on W/O	0.00							
140									
QC	Memo	0.00							
Quality Control									
150	Spray Painting per QS1005 4.2	0.00							
150									
SprayPaint	Memo	0.00							
Spray Painting	PRIME AS PER DWG NOTE #2								

143/7/10 (10)

W/A

C& 13/07/10

m125452

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Work Order ID 93736

93736

Page 4

December 5, 2012 1:44:19 PM

Item ID: 647.9310

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: LH Bracket

Start Date: 11/26/12 Start Qty: 10.00

10

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Up/
Run Hours

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC14 Inspect Spray Paint

0.00

160

QC

6

Memo

0.00

Quality Control



13.7.10

10

170

Identify as per dwg & Stock Location:

0.00

170

Packaging

Memo

58400

0.00

Packaging

12/3/12

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.00

Quality Control

12/7/11

11/307-10

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

Picklist Print

December 5, 2012 1:44:19 PM

Page 1

Work Order ID: 93736
Parent Item: 647.9310
Parent Item Name: LH Bracket

Start Date: 11/26/12
Start Qty: 10.00

Required Date: 12/14/12
Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 12-11-19 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.9310P LH Bracket		Purchased	No				Each	0.0000		10		12/3/12	(10)
M7075T6B1.500X8.500 7075-T6 BAR 1.500" X 8.500"		Purchased	No				f	0.0000		2.7027027		12/13/12	(10)

M124030

10 . 12-12-19

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector			
Doc/Data <input type="checkbox"/>												
Equip/Tooling <input type="checkbox"/>												
Operator <input type="checkbox"/>												
Material <input type="checkbox"/>												
Setup <input type="checkbox"/>												
Other <input type="checkbox"/>												
Process <input type="checkbox"/>												
Supplier <input type="checkbox"/>												
Training <input type="checkbox"/>												
Unapproved <input type="checkbox"/>												
FAULT CATEGORY												
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03209				SHEET 1 OF 2	
	DWG NO. 647.9300	REV: N/C	PREPARED BY A. QUAN	DATE: 11/09/11	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: BRACKET					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: CURRENT ORDER AND STOCK		
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED HOLE LOCATIONS ON 647.9314, ADDED HOLE 647.9315					

SHEET 1, ZONE B3:

NOTES: UNLESS OTHERWISE SPECIFIED

⚠ MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.

⚠ FINISH: HARD ANODIZE IAW MIL-A-8623 TYPE II, CLASS 2, COLOR: BLACK;
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J TYPE I, CLASS N.

3 DEBURR AND BREAK ALL SHARP EDGES.

4 IDENTIFY IAW MPP-120 LASER ENGRAVE CENTURY GOTHIC, 12 POINT P/N AND REVISION.

⚠ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9310 LH BRACKET.SLDPRT, LAST MODIFIED 06-22-10

⚠ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9311 SUPPORT BRACKET.SLDPRT, LAST MODIFIED 06-22-10

⚠ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9312 BRACKET.SLDPRT, LAST MODIFIED 06-22-10

⚠ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9313 BRACKET.SLDPRT, LAST MODIFIED 06-22-10

⚠ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9314 RETAINER BRACKET.SLDPRT, LAST MODIFIED 09-26-11

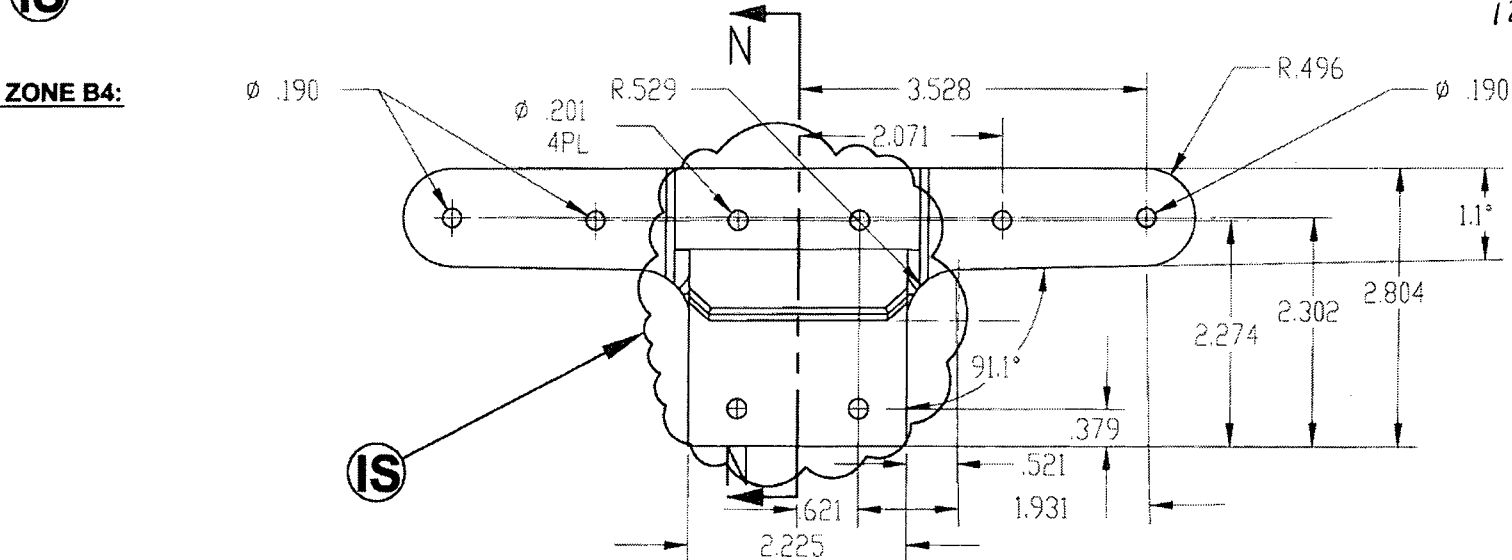
⚠ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 10-19-11

⚠ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9316 CASSEAR BRACKET.SLDPRT, LAST MODIFIED 06-22-10

⚠ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9317 RH BRACKET.SLDPRT, LAST MODIFIED 06-22-10

COPY
TO
KEEPING
FILED COPY
TO AMENDMENT
NOTICE
ORDER
9.3736-MLJ
12-11-27

SHEET 7, ZONE B4:



FN	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

93736

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES AND REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

REV	DESCRIPTION	DATE	BY
1	LAST MODIFIED FOR RELEASE ONLY		
2	REVISED FOR RELEASE ONLY		

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2. COLOR: BLACK; PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J TYPE I, CLASS N.
3. DEBURR AND BREAK ALL SHARP EDGES.
4. IDENTIFY IAW MPP-120. LASER ENGRAVE CENTURY GOTHIC, 12 POINT P/N AND REVISION.
5. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9310 LH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
6. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9311 SUPPORT BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
7. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9312 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
8. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9313 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
9. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9314 RETAINER BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
10. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
11. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9316 CROSSBAR BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
12. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9317 RH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.

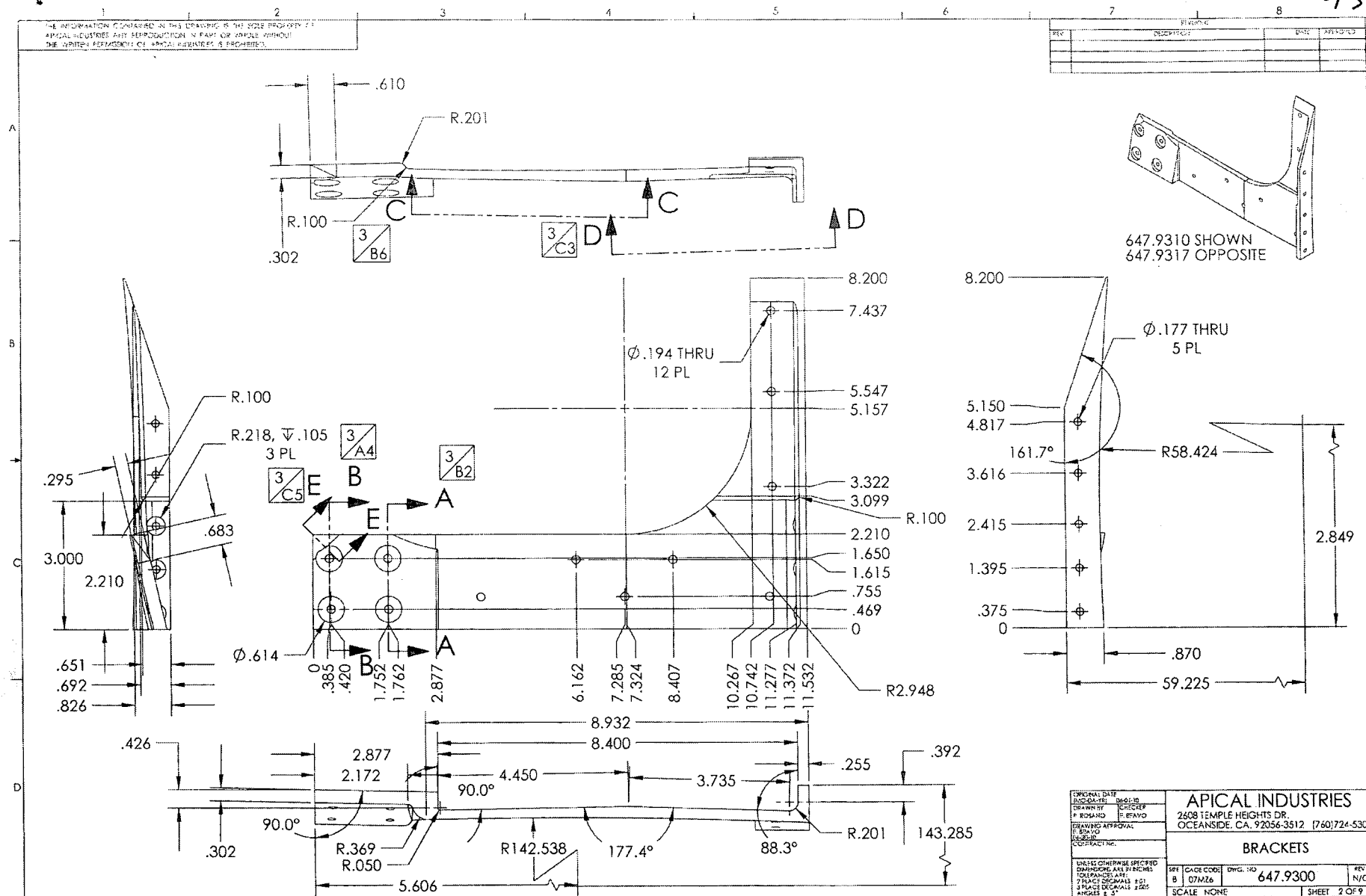
UNINCORPORATED ECN(s)

03209

	647.9317	RH BRACKET	△	△	△
	647.9316	CROSSBAR BRACKET	△	△	△
	647.9315	RECEPTACLE BRACKET	△	△	△
	647.9314	RETAINER BRACKET	△	△	△
	647.9313	BRACKET	△	△	△
	647.9312	BRACKET	△	△	△
	647.9311	SUPPORT BRACKET	△	△	△
	647.9310	LH BRACKET	△	△	△
FIND #	PART #	DESCRIPTION	MAT'L	SPEC.	
QTY	PARTS LIST				
NEXT ASSY (S)	APICAL INDUSTRIES				
647.8900	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300				
	BRACKETS				
	QTY	CAGE CODE	QTY	QTY	REV.
	8	07A126	647.9300		N/C
	SCALE NONE SHEET 1 OF 9				

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APCAL INDUSTRIES ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APCAL INDUSTRIES IS PROHIBITED.

647.9310 SHOWN
647.9317 OPPOSITE

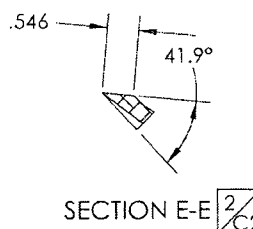
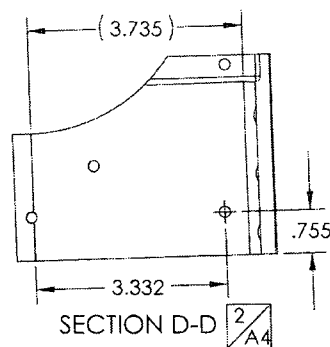
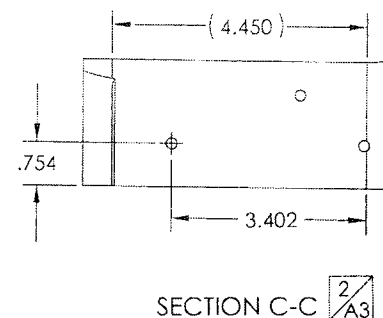
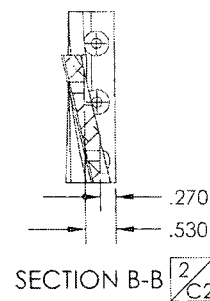
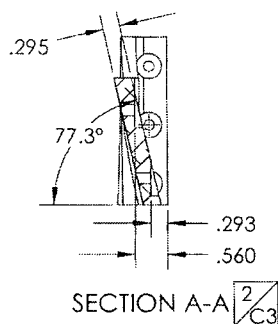


(PERSONAL DATA) (NAME) (ADDRESS) (CITY) (STATE) (ZIP) (PHONE) (FAX) (E-MAIL) (TELETYPE) (FACSIMILE) (CABLE) (RADIO) (TELEVISION) (MAGNETIC) (COMPUTER) (FIBER OPTIC) (SATELLITE) (WIRELESS) (OTHER)	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5300
(DRAWING APPROVAL) (BY) (DATE) (SIGNATURE) (TITLE)	BRACKETS
(ENGINEERING SPECIFICATIONS) (MATERIALS) (DIMENSIONS) (TOLERANCES) (FINISHES) (COLORS) (TEXTURES) (SMOOTHNESS) (GLAZES) (PAINTS) (STAIN) (SEALANTS) (ADHESIVES) (GLUES) (WAXES) (POLISHES) (CLEANERS) (PRESERVATIVES) (PROTECTANTS) (REPAIRS) (REPLACEMENTS) (MODIFICATIONS) (UPDATES) (RENOVATIONS) (RESTORATIONS) (PRESERVATION) (MAINTENANCE) (REPAIRS) (REPLACEMENTS) (MODIFICATIONS) (UPDATES) (RENOVATIONS) (RESTORATIONS) (PRESERVATION) (MAINTENANCE)	(REV) (DATE) (BY) (TITLE) (SCALE) (SHEET)

93734

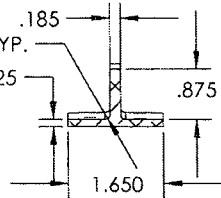
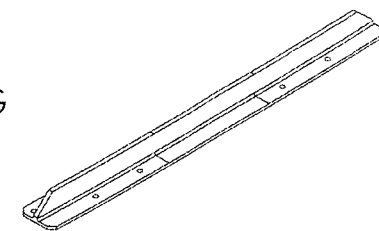
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REV	DESCRIPTION	DATE	APPROVAL



ORDERED BY: _____ INDUSTRY: _____ DRAWN BY: _____ CHECKED BY: _____ DESIGNED BY: _____ DRAWING APPROVAL: _____ P. BRAYO BR-010 CONTRACT NO.: _____		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA, 92056-3512 (760)724-5300	
1. DRILL & CHAMFER SPACED DIMENSIONS IN PARENTHESIS 2. PLACE DIMENSIONS IN PARENTHESIS 3. PLACE DIMENSIONS IN PARENTHESIS 4. PLACE DIMENSIONS IN PARENTHESIS 5. PLACE DIMENSIONS IN PARENTHESIS		BRACKETS	
SIZE: B CAGE CODE: 07K426 DWG. NO.: 647.9300 SCALE: NONE	REV: N/C SHEET: 3 OF 9		

*WORK			
REV	DESCRIPTION	CASE	APPROVED

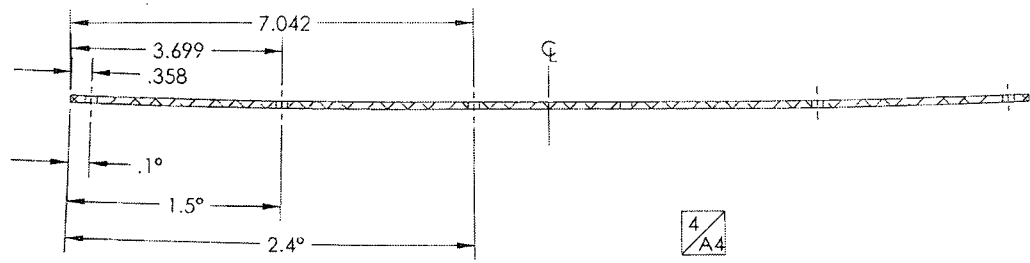


PROJECT DATE 3/20/84-179 Date 01-10-84 DRAWN BY R. F. BOGARD CHECKED BY R. F. BOGARD SCALE 1/8" = 1'-0" CONTRACT NO.	<h1>APICAL INDUSTRIES</h1> <p>2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300</p> <h2>BRAKETS</h2>
ALL DIMENSIONS SPECIFIED UNLESS OTHERWISE NOTED TOLERANCES ARE: 1/8" BRACKETS ±.015 1" PLATE CANNALS ±.010 ALL OTHERS ±.010	SIZE 1/8" CAGE CODE DWG. NO. 647.9300 REV 07/2M6 H/C SCALE NONE SHEET 4 OF 9

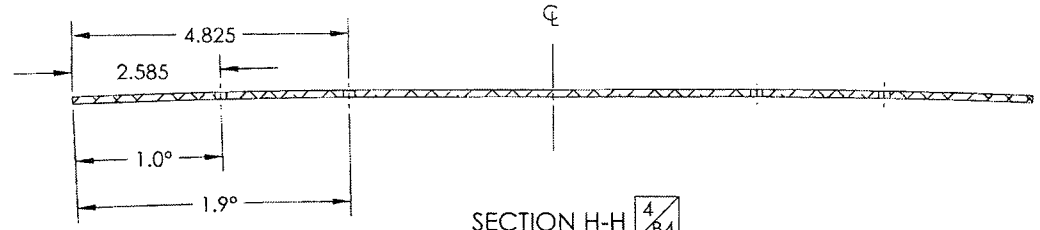
93736

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REV.	DESCRIPTION	DATE	APPROVED



SECTION G-G



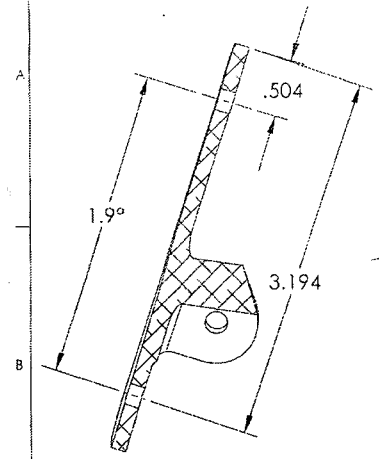
SECTION H-H

ORIGINAL DATE 2000-04-27		DATE 2000-04-27	
DRAWN BY R. ROSANO	CHECKED BY P. BRAVO	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO		BRACKETS	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.5°		QTY E 07M26	SYNG. NO. 647.9300
SCALE NONE		SHEET 5 OF 9	

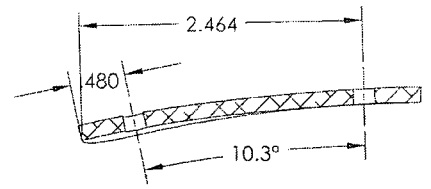
93736

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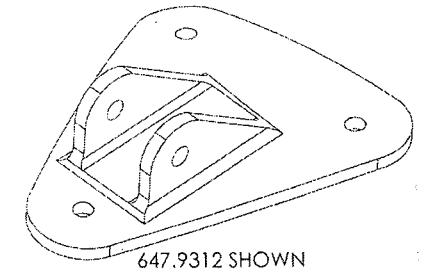
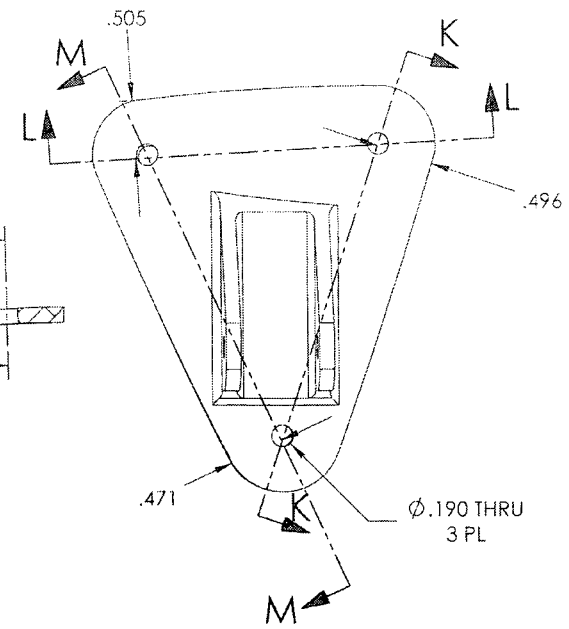
REV.	DESCRIPTION	DATE	APPROVED



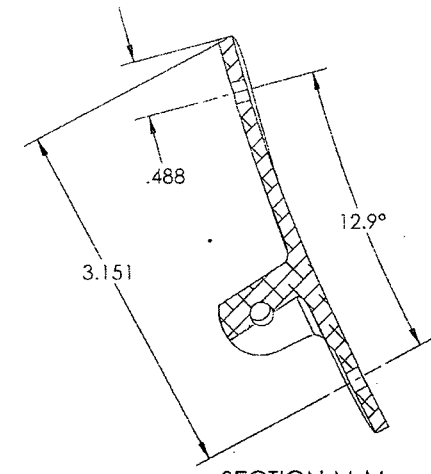
SECTION K-K



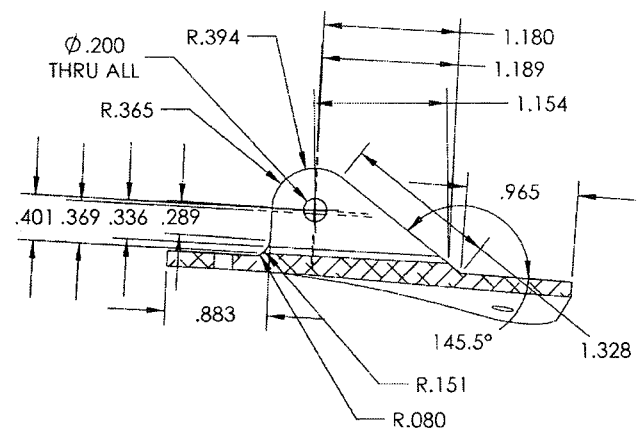
SECTION L-L



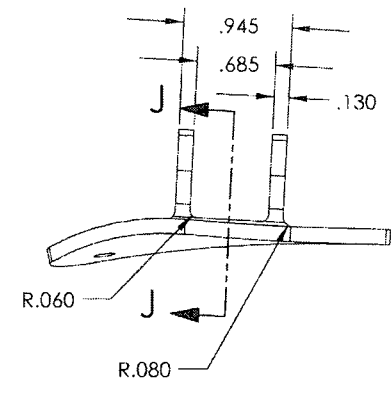
647.9312 SHOWN
647.9313 OPPOSITE



SECTION M-M



SECTION J-J

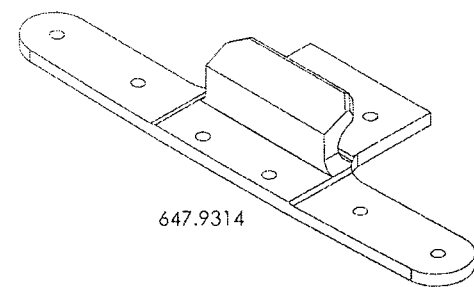
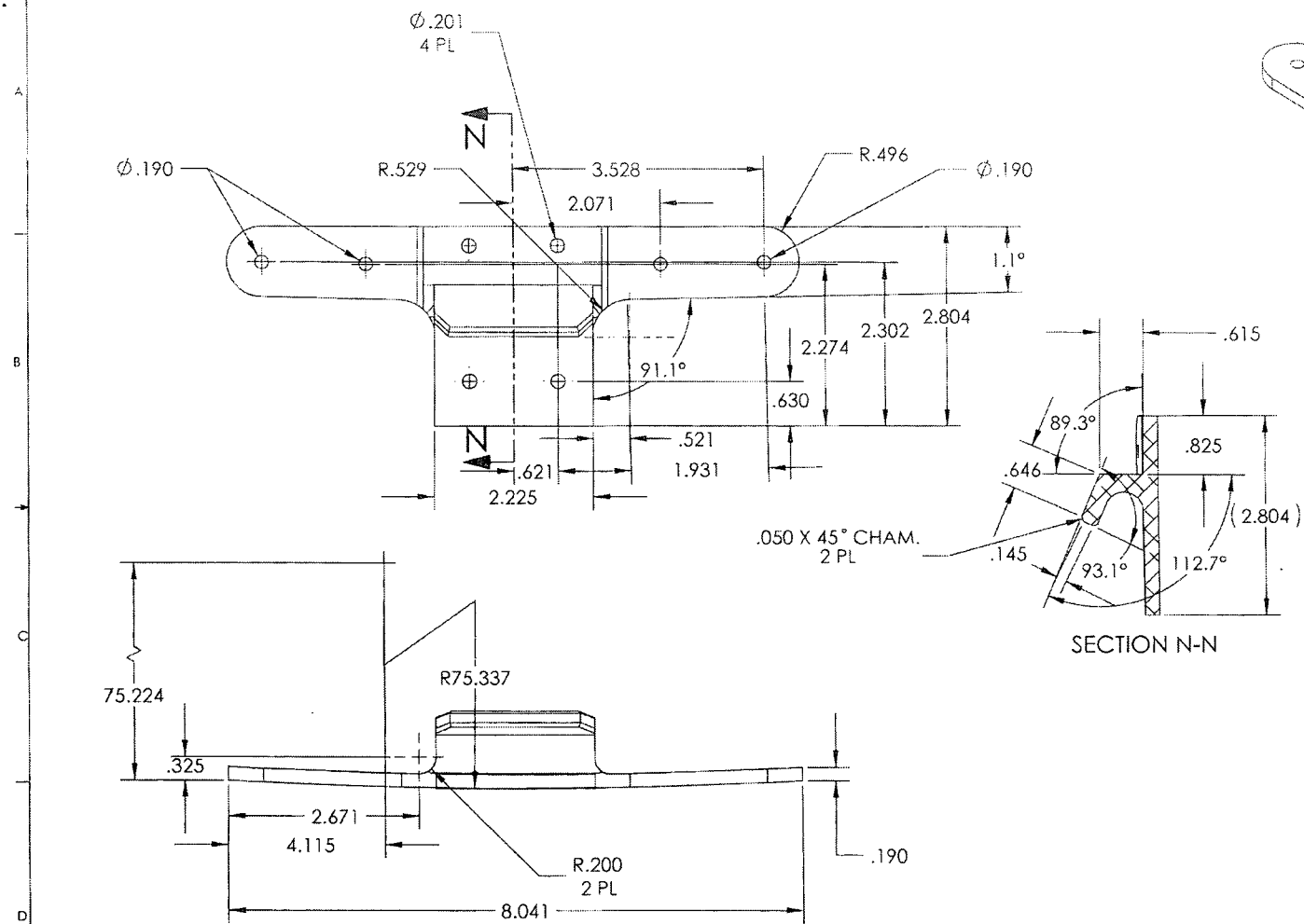


PARTS LIST			
APICAL INDUSTRIES			
2608 TEMPLE HEIGHTS DR.			
OCEANSIDE, CA. 92056-3512 (760)724-5300			
BRACKETS			
UNLESS OTHERWISE SPECIFIED	REV.	CLAS CODE	DRG. NO.
UNLESS OTHERWISE SPECIFIED	B	07/MZ	647.9300
UNLESS OTHERWISE SPECIFIED	SCALE	NONE	SHEET 6 OF 9

93736

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REV.	DESCRIPTION	DATE	APPROVED

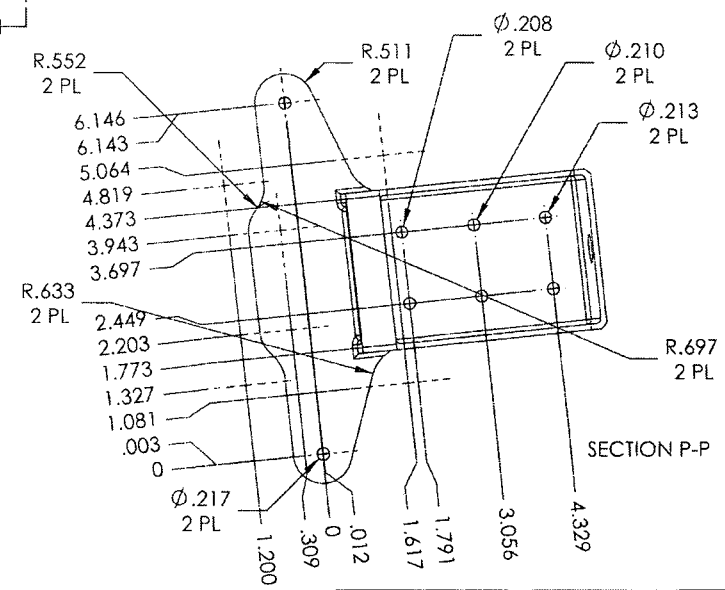
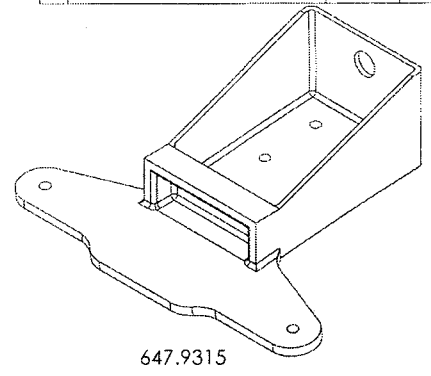
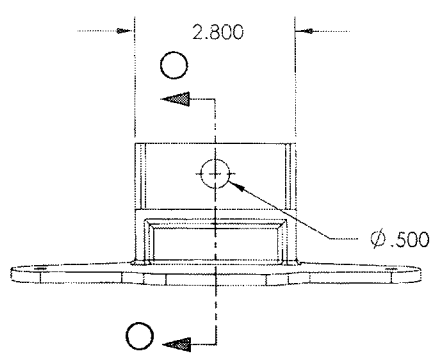
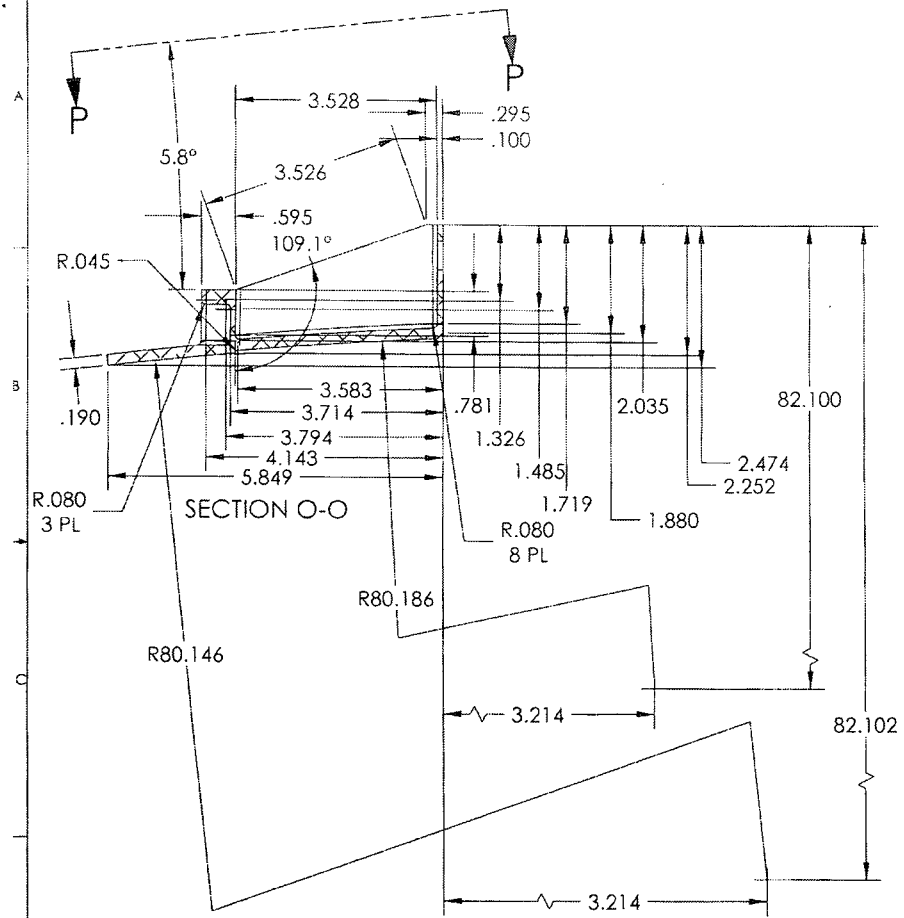


ORIGINAL DATE (MONTH-YEAR) 05-01-10		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY P. KISHINO	CHECKED P. KISHINO	BRACKETS	
DRAWING APPROVAL P. KISHINO CONTRACTING		SEE CAGE CODE B 07M126	REV N/C
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.010 ANGLES ±.3°		DWG NO. 647.9300	SHEET 7 OF 9
SCALE NONE			

93736

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REV.	DESCRIPTION	DATE	APPROVED
1	002 P.P. 2-4		



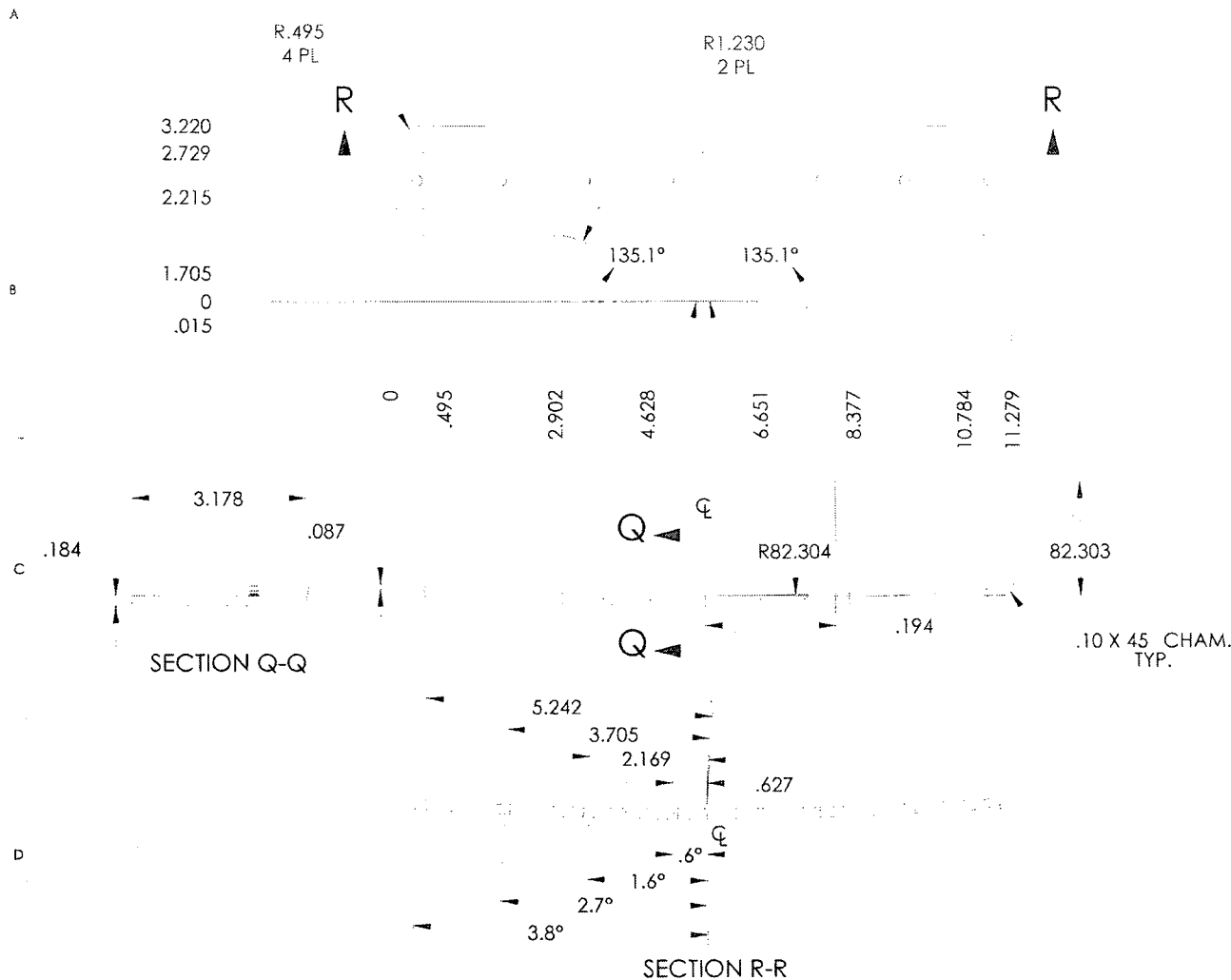
ORIGINAL DATE		INCHES - FEET		SCALE	
DRAWN BY		CHECKED		DATE	
DESIGNED		P. BRAVO		DATE	
DRAWING APPROVAL		P. BRAVO		DATE	
CONTRACT NO.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.02 3 PLACE DECIMALS ±.005 ANGLES ±.1°					
REV.	DATE	DESCRIPTION	REV.	DATE	DESCRIPTION
B	07/12/16	647.9300	R/C		
SCALE: NONE			SHEET 8 OF 9		

APICAL INDUSTRIES
 2408 TEMPLE HEIGHTS DR.
 OCEANSIDE, CA. 92056-3512 (760)724-5300

BRACKETS

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93736



ORIGINAL DATE: 09-01-10
 (W/D-GA-78) DRAWN BY: CHICOFF
 P. ROJANO P. BRANCO
 DRAWING APPROVAL: P. BRANCO
 P. BRANCO
 CONTRACT NO.

APICAL INDUSTRIES
 2608 TEMPLE HEIGHTS DR.
 OCEANSIDE, CA. 92056-3512 (760)724-5300

BRACKETS

SEE CAGE CODE DWG NO: 647.9300
 B 07416 N/C
 SCALE: NONE SHEET 9 OF 9



2228 Gladwin Cres.
Ottawa, Ont.
K1B 4S6

Telephone (613) 899-2405
Fax (613) 226-1719

Certificate of Compliance

To:
Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury Ont.
K6A 1K7

Po Number	Part Number	Quantities
18599	647.9310	10
	647.9317	1

It is hereby certified that all articles mentioned above are in conformance with the requirements, specification and drawings as listed on customer purchase order number, 18599 issued by Dart Aerospace Inc.

Andrew Malcolm
Inspector
Archer Precision Inc.
2228 Gladwin Cress.
Ottawa, Ontario
K1B 4S6



Inspection Report

Customer Name Dart Aerospace				QTY 10		DWG # 647.9310		REV. N/C		Part Name Brackets				Date 16 JAN/13		Lot#		Job # 674-5							
Page 1 of				Inspection Interval		Special Notes																			
Item #	DWG. Dim	Tolerance	Operator First Off	QA First		QA Final		2		3		4		5		6		7		8		9		10	
				A	R	A	R																		
	Rev	N/C	✓	✓	✓																				
	MAT	Supplies	✓	✓	✓																				
	SUB	-																							
	Deburr	Yes	✓	✓	✓																				
1	.610	±.005	PP	✓	✓																				
2	R.201	±.005	PP	✓	✓																				
3	R.100	±.005	PP	✓	✓																				
4	.302	±.005	.301	✓	✓			.301	.300	.301	.300	.300	.302	.301	.301	.302									
5	R.100	±.005	PP	✓	✓																				
6	R.218	±.005	.2205	✓	✓			PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP
7	↓.105	±.005	.103	✓	✓			.102	.101	.102	.102	.101	.102	.102	.102	.102	.102	.102	.102	.102	.102	.102	.102	.102	.102
8	3PL	-	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9	.683	±.005	PP	✓	✓																				
10	.295	±.005	.294	✓	✓			.293	.294	.294	.295	.295	.295	.295	.295	.295	.295	.295	.295	.295	.295	.295	.295	.295	.295
11	3.000	±.005	3.001	✓	✓			3.000	3.001	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000
12	2.210	±.005	2.208	✓	✓			2.209	2.209	2.210	2.210	2.208	2.208	2.208	2.209	2.209	2.209	2.209	2.209	2.209	2.209	2.209	2.209	2.209	2.209
13	.651	±.005	PP	✓	✓																				
14	.692	±.005	PP	✓	✓																				
15	.826	±.005	PP	✓	✓																				
16	.426	±.005	PP	✓	✓																				
17	.302	±.005	.301	✓	✓			.301	.300	.302	.300	.300	.302	.301	.300	.302									
18	90.°	±.5°	90.	✓	✓			PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP
19	R.369	±.005	PP	✓	✓																				
20	R.050	±.005	PP	✓	✓																				
21	R142.53	±.005	PP	✓	✓																				
22	177.4°	±.5°	PP	✓	✓																				

Date of Issue July, 13, 2005.



Rockland, Ont. K4M 1Y1
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Date:

Number: 62491

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Ship Via

Rev:

Terms

Quantity

10
ea

Description

Part: 647.9310

HARD ANODIZE BLACK
MIL-A-8625 TYPE III CLASS 2
PRIME MIL-P-23377J TYPE I CLASS N
Job: 20130414

PO: 20257

Line:

Certificate of Conformance

A.T.G. Industries certifies that all items in this shipment are in conformance
with all requirements, specifications and drawings referenced in the purchase order.

ISO 9001 : 2008 REGISTERED
ATG SALES-2010 TERMS APPLY

DATE: 9/2/13

CERTIFIED SIGNATURE:

RECEIVER SIGNATURE: